

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 21-34 are pending, Claims 1-20 having been canceled without prejudice or disclaimer and Claims 21-34 having been added by way of the present amendment.

In the outstanding Office Action, Claims 1, 2, 11, 13 and 17-20 were rejected as being obvious over Hakkinen (U.S. 45,839,056) in view of Walton et al. (U.S. Patent No. 6,542,488, hereinafter Walton); and Claims 3-10, 12, and 14-16 were rejected as being unpatentable over Hakkinen in view of Walton and in further view of Olofsson et al. (U.S. Patent No. 6,668,159, hereinafter Olofsson).

Claims 1-20 have been canceled, and replaced with new Claims 21-34 as it is believed that Claims 21-34 help to clarify the subject matter of the invention and are believed to distinguish the prior art of record. Applicants believe that no new matter is added.

New Claim 21 is directed to a mobile communication system that includes a mobile station and a base station that are connected via one or more radio channels. The base station includes (1) traffic measuring means for measuring traffic on the one or more radio channels, (2) rate setting means for changing a transmission bit rate, (3) control means for determining the transmission bit rate based on the traffic measured by the traffic measuring means, and (4) signal multiplexing means for transmitting to the mobile station control information containing information about the transmission bit rate. The mobile station also includes communication means for communicating with the base station in accordance with a transmission bit rate received from the base station.

Hakkinen describes a system that is directed to controlling transmission power based on both the traffic in the radio channel as well as communication quality. However, Hakkinen does not teach determining a transmission bit rate based on the traffic of radio

channels. In this context, the term “traffic” refers to the quantity of transmission data on the radio channels, as discussed in the specification.

Walton is directed to a technology of controlling transmission power so that a desired transmission power corresponds to a predetermined transmission rate is reached. According to this technology, the necessary transmission rate is predetermined for the control of the transmission power. Moreover, Walton does not teach “determining a transmission bit rate based on the traffic of the radio channels”, but teaches controlling the transmission power such that the desired transmission power corresponds to the predetermined transmission rate is actually reached.

Accordingly, neither Hakkinen nor Walton teach or suggest the feature in independent Claim 21, of measuring traffic and then determining a transmission bit rate based on the measured traffic. Hakkinen actually describes a different system in which transmission power is controlled based on both the traffic and the communication quality so as to avoid transmitting more power than necessary and disturbing communication quality for end users. Walton is substantially different in that it describes controlling the transmission power such that the desired transmission power corresponds to a predetermined transmission rate. Neither Hakkinen nor Walton teach or suggest the feature of determining a transmission bit rate based on the traffic of the radio channels, as claimed. Therefore, it is respectfully submitted that no matter how Walton and Hakkinen are combined, the combination neither teaches nor suggests all the features of independent Claim 21 and therefore does not render obvious the invention defined by amended Claim 21. Because Claims 22-29 depend from Claim 21 it is respectfully submitted that these claims also patentably define over the asserted prior art.

It should be noted that although Olofsson is asserted for its disclosure of decreasing the information transmission bit rate to thereby improve the communication quality, wherein

decreasing the information transmission bit rate when the traffic or the radio channels in use are high and the communications quality of the radio channels and use is degraded, whereby a given communications quality can be ensured. Actually, Olofsson describes in regard to Figure 3 through Figure 5, that the technology of measuring the link quality of one channel and providing a display indication to the user of the maximum bit rate available and the predicted bit rate the user can expect to achieve, based on the measured link quality.

Olofsson described the traffic, but discloses at column 5, lines 46-48 that the traffic load could be ignored in the calculation of the maximum bit rate. Olofsson does not teach or suggest determining a bit rate based on the traffic of the radio channels. Therefore, even if Olofsson were combined with Hakkinen and Walton, the combination would neither teach nor suggest all the features of Claims 21-29, and therefore would not render obvious the invention defined by Claims 21-29.

Claim 30 is directed to a base station that includes a traffic measuring means for measuring traffic of one or more plurality of radio channels, a rate setting means for changing a transmission bit rate, and control means for determining the transmission bit rate of the mobile station based on the traffic measured by the traffic measuring means.

As discussed above, with regard to Claim 21, it is believed that no combination of Hakkinen, Walton, or Olofsson, teaches or suggests the feature of determining the transmission bit rate of the mobile station based on the traffic measured by the traffic measuring means. Accordingly, it is respectfully submitted that Claim 30, and dependent Claim 31, patentably define over the asserted prior art.

For similar reasons it is respectfully submitted that Claims 32-34, though of different statutory class, and/or scope, are believed to patentably define over the asserted prior art at least for the same reasons discussed above with regard to Claim 21.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 21-34, is patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

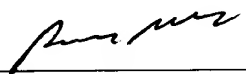
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